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## UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 08/813,647 | 03/07/1997 | ARIEL HENDEL | 082225.P2170 | 3716 |

7590          08/28/2002

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| EXAMINER |
|---|
| VU, THONG H |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2152 | |

DATE MAILED: 08/28/2002          27

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

| | Application No. | Applicant(s) |
| **Office Action Summary** | 08/813,647 | HENDEL ET AL. |
| | Examiner | Art Unit |
| | Thong H Vu | 2152 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 June 2002* .

2a)☒ This action is **FINAL**.     2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-41* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

| | |
| 1) ☒ Notice of References Cited (PTO-892) | 4)☐ Interview Summary (PTO-413) Paper No(s). _____ . |
| 2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5)☐ Notice of Informal Patent Application (PTO-152) |
| 3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6)☐ Other: . |

1.      This office action is in response to the Request for Reconsideration filed 6/11/02.

Claims 1-41 are pending. The rejections cited are as stated below.

2.      Claims 1-41 are rejected under 35 U.S.C. § 103 as being obvious over

Parameswaran Nair et al [Nair 5,724,356] in view of Freeman et al [Freeman

5,390,232].

3.      As per claims 32,1,6,14,19,24,38-41 Nair discloses the invention substantially as

claimed, a network device, comprising a first port that connects to a first interface; a

second port  that connects to a second interface which is equivalent to a LAN modem

node using external modem (first port) with telephone line (first interface) and internal

modem (second port) with telephone line (second interface) connects to other LAN

node in a bridge system [Fig 1,2,3,17, col 5 lines 40-col 6 line 38, col 7 lines 17-67]; a

trunking pseudo driver or bridge software, coupled to the first port and the second port,

that allows the first interface and second interface to provide (i.e.: emulate) a single

high-speed device by assigning to said first and second interfaces an associated

identifier (i.e.: channel number, logical number) that identifies the connection between

said first and second ports which is equivalent to the software module allows the LAN

modem node controlled the first and second modem [col 9 lines 15-37, col 14 lines 28-

44, col 19 lines 35-50, col 21 lines 5-42, col 22 lines 27-47]

        Nair does not teach emulate single high speed device. A skilled artisan would

have motivation to improve the Nair's apparatus by modifying the software control LAN

modem node which is well-known in the art and found Freeman's teaching. Freeman

taught a communication network using ISDN as high speed link, pseudo code program

[col 6 lines 20-50], a switching fabric emulator connected to remote unit via trunk group

[Freeman col 4 lines 62-68] which equivalent to a single high speed device.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the a switching emulator with emulator software, pseudo code, ISDN link as taught by Freeman into Nair 's apparatus in order to utilize the LAN modem node. Doing so would provide the an easy, simple and efficiency tool to emulate a single high speed assigned to the plurality of channels between the source and destination devices on the network.

Thus the system and method of claims 32,1,6,14,19,24,38-41is obvious in view of the combination of references.

4.      As per claim 2, Nair-Freeman disclose the step of select one of the plurality of interfaces to send the packet [Nair col 28 lines 20-50].

5.      As per claim 3, Nair-Freeman disclose the step of select one of the plurality of interfaces to send the packet comprises utilizing state information in the first device as inherent feature of selecting the interface to send the packet [Nair col 28 lines 20-50].

6.      As per claim 4, Nair-Freeman disclose the step of select one of the plurality of interfaces to send the packet comprises utilizing address information in the first device as inherent feature of selecting the interface to send the packet [Nair col 28 lines 20-50].

7.      As per claims 5,13 Nair-Freeman disclose transmitting a first packet of data on only one of the plurality of interfaces as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

8.      As per claim 6, Nair-Freeman disclose assigning a first identifier to a first interface and a second interface at the first device; and identifying a path between the first device to the second device with the first identifier as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

9.      As per claims 7,26 Nair-Freeman disclose assigning the first identifier to the first interface which is equivalent to channel number [Nair col 14 lines 27-44] and the second

interface comprises assigning a media access control (MAC) address as inherent feature of address table [Nair Fig 21 A-C].

10.     As per claims 8,25 Nair-Freeman disclose Internet Protocol (IP) address as inherent feature of address table [Nair Fig 21 A-C]

11.     As per claims 9,27 Nair-Freeman disclose a group identifier as inherent feature of address table [Nair Fig 21 A-C].

12.     As per claim 10, Nair-Freeman disclose the first device comprises a load balancing unit that allocates data to be transmitted on the first interface and the second interface such that data traffic on the first interface and the second interface is approximately the same as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

13.     As per claim 11, Nair-Freeman disclose allocating data to be transmitted on the first interface and the second interface, transmitting the data on the first interface when the output queue of the second interface is fuller than the output queue of the first interface and when previous data sent on the first interface is no longer on the first interface; and transmitting the data on the second interface when the output queue of the first interface is fuller than the output queue of the second interface and when previous data sent on the second interface is not longer on the second interface as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

14.     As per claim 12, Nair-Freeman disclose selecting one of the first interface and the second interface to send a packet of data based on address information in the packet of data as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

15.     As per claims 21,29,33, Nair-Freeman disclose the trunking pseudo driver comprises a load balancing unit that selects one of the first and second interfaces to

transmit a packet of data as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

16.    As per claim 34, Nair-Freeman disclose the trunking pseudo driver comprises an identification unit that assigns a first identifier to the first interface and the second interface that identifies a path between the first and the second device as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

17.    As per claims 20,28,35, Nair-Freeman disclose the first and second interface are homogeneous as inherent features of modems or bridges [Nair col 19 lines 35-50].

18.    As per claims 22,30,36 Nair-Freeman disclose the network device is an end-node or destination node [Nair Fig 1]

19.    As per claims 23,31,37, Nair-Freeman disclose the network device is a switch such as bridges system [Nair col 19 lines 35-50].

20.    As per claims 33,34, Nair-Freeman disclose the trunking pseudo driver comprises a load balancing unit that selects one of the first and second interfaces to transmit a packet of data as inherent feature of bridge software module driver [Nair col 19 lines 35-50].

Thus, as explained above, the system and method of claims 1-41 is obvious in view of the prior arts.

## Response to Arguments

21.    Applicant's arguments filed 6/11/02 have been fully considered but they are not persuasive to overcome the prior art.

(A) As per claim 32, applicant argues a network device comprising [1] a first port connects to a first interface; [2] a second port connects to second interface; [3] a trunking pseudo driver coupled to the first interface and second interface; [4] the

trunking pseudo driver allows the first interface and second interface to emulate a single

high speed device by assigning a identifier that identifies the connection between a first

device and second device.

As to point (A) Examiner notes Nair taught a dual LAN modem node using a

bridge system with a plurality of channels to provides compression for increasing

transmission speed; Nair taught [1] a first port (i.e.: external modem) connects to a first

interface (i.e.: telephone line) and [2] a second port (i.e.: internal modem) connects to

second interface (i.e.: telephone line) [Nair Fig 1-3,17]; Nair also taught a bridge

software or control module [Fig 25, col 2 lines 1-24,col 4 lines 36-58,col 9 lines 15-36,

col 18 lines 1-17, col 19 lines 43-50,65-col 20 line 15, col 22 lines 33-47] and assigning

identifier (i.e.: channel number, logical number) [Nair col 14 lines 28-44]; [4] Freeman

taught a switching fabric emulator with a pseudo code connects to network via trunk

group [Freeman Fig 4 col 4 line 62-col 5 line 9, col 6 lines 42-50] which is equivalent to

a emulation of a single high speed device.

22.     **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
policy as set forth in 37 CFR 1.136(a).
        A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within TWO
MONTHS of the mailing date of this final action and the advisory action is not mailed until after
the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37
CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,
however, will the statutory period for reply expire later than SIX MONTHS from the mailing
date of this final action.
        Any inquiry concerning this communication or earlier communications from the
examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643.
The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Mark Rinehart*, can be reached at (703) 305-4815.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to:

Commissioner of Patent and Trademarks
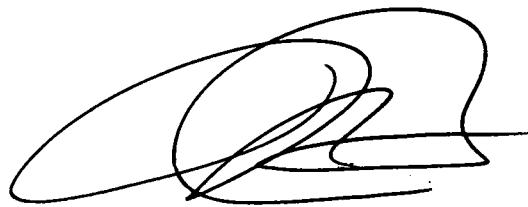Washington, D.C. 20231

or faxed to :

After Final    (703) 746-7238
Official:       (703) 746-7239
Non-Official  (703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

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